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March 14, 1996

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William S. Caton  
Federal Communications Commission  
1919 M Street, N.W.  
Washington, D.C. 20554

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MAR 14 1996

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF SECRETARY

Re: Errata to the Comments of Motorola, Inc. in  
CC Docket No. 94-102

Dear Mr. Caton:

On March 11, 1996, Motorola, Inc. ("Motorola") filed comments in the above-referenced proceeding that inadvertently included a number of clerical errors. Motorola has provided a revised and corrected copy of its comments for your records and is sending corrected copies to all parties of record in the proceeding. The earlier filed version of the comments should be disregarded. We regret any inconvenience this may have caused.

If any questions arise concerning this correction, please contact the undersigned at (202) 828-3182.

Respectfully submitted,



Eric W. DeSilva

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Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554

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MAR 14 1996

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF SECRETARY

In the Matter of )  
 )  
Revision of the Commission's Rules ) CC Docket No. 94-102  
To Ensure Compatibility With )  
Enhanced 911 Emergency Calling Systems )

**REPLY COMMENTS OF MOTOROLA, INC.**

Motorola, Inc. ("Motorola") respectfully submits its reply to the supplemental comments filed in the above-captioned rulemaking proceeding. These supplemental comments were filed in response to an FCC *Public Notice* noting an agreement recently concluded between the Cellular Telecommunications Industry Association ("CTIA"), the National Emergency Number Association ("NENA"), the Association of Public Safety Communications Officers ("APCO"), and the National Association of State Nine One One Administrators ("NASNA").<sup>1</sup> As discussed below, Motorola believes that the initial comments on the *Agreement* broadly supported the steps taken by CTIA and the public safety organizations, but noted that the *Agreement* is not, in all respects, consistent with the current state of technology and network development. Motorola also believes that the initial comments raise valid concerns, addressed below, regarding the appropriate means for consumer education about wireless E911 and the impropriety of applying E911 requirements to certain classes of mobile operations.

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<sup>1</sup>DA 96-108 (Feb. 16, 1996) ("*Agreement*").

***Motorola and the initial commenters support the purposes and goals embodied in the CTIA/NENA/APCO/NASNA Agreement.*** Motorola's original comments on the *Agreement*, like the majority of other commenters, largely supported the goals and purposes of the *Agreement* and heralded the *Agreement* as an important step in wireless E911 implementation.<sup>2</sup> However, like many other commenters, Motorola noted that the *Agreement* proposed an implementation schedule for Phase I compliance that was inconsistent with the current state of technology. Specifically, the deadline does not consider the need to implement and thoroughly test the many substantial upgrades needed to wireless switching systems, as well as the potential requirement to alter existing Public Safety Answering Points ("PSAPs") and local exchange switching centers in areas.<sup>3</sup> Motorola agreed, like many other commenters, that automatic location information ("ALI") should be implemented as a two-step rather than three-step process and that the revised accuracy requirements for ALI were appropriate.<sup>4</sup> Motorola also generally supported the five year time frame for implementation of ALI, but noted that compliance with such a time frame could not be assured given the unpredictability of technological developments.<sup>5</sup> As a final matter, Motorola urged the Commission to ensure,

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<sup>2</sup>BellSouth Corporation Comments at 2; Motorola, Inc. Comments at 3; Nextel Communications, Inc. Comments at 4; Northern Telecom, Inc. Comments at 1; Personal Communications Industry Association Comments at 3-5; Southwestern Bell Mobile, Inc. Comments at 1; U S West, Inc. Comments at 1, 3; Vanguard Cellular Systems, Inc. Comments at 1, 3-5.

<sup>3</sup>Ad Hoc Rural Cellular Coalition Comments at 3; BellSouth at 4-5; Motorola at 4-6; Nortel at 3-6; PCIA at 9-12; Rural Cellular Association Comments at 2-3; Southwestern Bell at 3-4; U S West at 3-5; Vanguard at 7.

<sup>4</sup>BellSouth at 2; Motorola at 6; Nextel at 3; Nortel at 3; PCIA at 5-7; Vanguard at 3-4.

<sup>5</sup>Motorola Comments at 6-8.

when and if it adopts standards for wireless ALI, that these standards be compatible with all radio frequency technologies, including analog AMPS and digital TDMA and CDMA air interfaces.<sup>6</sup>

*Given the critical safety needs implicated by E911 systems, compliance should not be mandated until field trials have confirmed the reliability and accuracy of the underlying technology.* Motorola recognizes that some commenters have provided optimistic assessments of timing for E911 compliance.<sup>7</sup> However, one of the primary reasons for remaining cautious regarding E911 deployment is to assure that the technology -- as deployed in the field under real world circumstances -- will perform as expected.<sup>8</sup> For example, although some limited testing of ALI systems for wireless carriers has occurred, the technology must be tested in a variety of propagation environments and technical network configurations with a range of air and PSAP interfaces to assure consistent, reliable delivery of location information. This same point is also true with respect to call back and call hold systems, which must be implemented differently in different services and, indeed, differently even for different systems within the same service. The country's public safety infrastructure is stretched too thinly to require agencies to divert valuable time and resources in reliance upon E911 information that is misleading or, even worse, completely erroneous.

*Motorola and the initial commenters agree that consumer education can be accomplished satisfactorily without imposition of equipment labeling requirements.*

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<sup>6</sup>*Id.* at 7-8.

<sup>7</sup>*See, e.g.,* KSI, Inc. Comments; Concepts to Operations, Inc. Comments.

<sup>8</sup>*See, e.g.,* PCIA at 12.

Additionally, with some exceptions, Motorola and the initial comments agree with the proposal in the *Agreement* that consumer education on E911 capabilities can be accomplished without equipment labeling requirements.<sup>9</sup> As previously noted, the availability of E911 features is likely to be influenced by the technical interconnection features available in a local exchange area, compatibility with PSAP interfaces, the architecture of the wireless system, and agreements reached with public safety personnel. These factors are system-specific and local in nature, and consequently subscriber education is best accomplished through efforts of the system operator. Indeed, handset labeling by manufacturers is unlikely to accurately describe the availability of E911 in any particular area, is complicated by roaming (since different functionalities could be available in different areas), and is, by its nature, static and would not reflect changes in systems and capabilities over time. As a result, uniform labeling is likely to be uninformative at best and misleading at worst. Motorola therefore urges the Commission to adopt the *Agreement's* proposal to leave subscriber education to local system operators and refrain from imposing labeling requirements on handsets.

***Private Mobile Radio Service ("PMRS") systems should not be required to implement E911 compatibility requirements.*** Motorola also notes that commenters have also raised some important points regarding the breadth of the E911 compliance rules that warrant Commission consideration. Specifically, the commenters observe that private land mobile users do not have an expectation of reaching emergency services by dialing 911 and frequently have other in place established procedures for addressing emergency communications. Therefore, E911

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<sup>9</sup>BellSouth at 11; Nextel at 7-8.

compliance should not be required for PMRS systems.<sup>10</sup> Indeed, many of these systems are not interconnected with the public switched network and may have no means for reaching local PSAPs. In addition, imposing E911 requirements may, in fact, hamper the efforts of on-site rescue personnel by causing confusion and misdirecting calls intended for emergency response teams.

***Traditional local Specialized Mobile Radio ("SMR") systems should not be subject to E911 compliance requirements.*** As recognized by the American Mobile Telecommunications Association ("AMTA") and Nextel Communications, Inc. ("Nextel"), some SMR operations, despite being commercial mobile radio services ("CMRS"), should not be treated the same as cellular and wide area CMRS networks for purposes of E911 compliance.<sup>11</sup> As AMTA observes, unlike wide area systems, traditional local SMRs are "typically considered a business tool" and were created only "to provide cost and spectrum efficient fleet dispatch service for construction, service and other businesses that require communications between dispatchers and vehicles and among vehicles."<sup>12</sup> Moreover, "local area SMRs have only limited interconnection capability," if interconnected at all, and "interconnection with the PSTN is considered an ancillary function which is typically provided for the convenience of the fleet owner or manager, rather than as an integral part of the SMR service itself."<sup>13</sup> As a

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<sup>10</sup>American Mobile Telecommunications Association, Inc. at 4-8; Blooston, Mordkofsky, Jackson & Dickens Comments at 2-4; Brown & Schwaninger Comments at 2-3; Motorola Comments at 3 (filed Mar. 17, 1995).

<sup>11</sup>AMTA Comments at 4-8.

<sup>12</sup>AMTA at 5.

<sup>13</sup>*Id.* at 5-6.

result, SMR subscribers do not have the same expectations with respect to 911 services as users of wide area systems and have evolved their own arrangements for responding to emergencies. Furthermore, the cost and technical complexity of E911 implementation, if possible at all, would compromise the ability of traditional local SMR operations to provide the low cost communications necessary to support industries and businesses. Under the circumstances, traditional local SMR systems should be exempted from compliance with E911 compatibility requirements, even if such systems are commercial in nature.

***Conclusion.*** In sum, Motorola believes that the Agreement is a great advance in the implementation of wireless E911 capabilities. The Agreement realistically modifies the accuracy requirements for ALI, proposes a more feasible two phase procedure for transitioning to ALI, and appropriately suggests that consumer education need not require extensive equipment labeling. However, as discussed above, the Agreement does not fully recognize the need to prove out and test new E911 technologies prior to deployment, and therefore adopts a Phase I deadline that appears to be unrealistic. The Agreement also does

not address the scope of E911 requirements, which should exempt MSS, PMRS, and traditional local SMR systems from compliance.

Respectfully submitted,

**MOTOROLA, INC.**

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Dated: March 11, 1996